



CITY OF NEW ORLEANS

Fix My Streets Financing Working Group

Capital Improvement Plan

Overview

- The Capital Improvement Plan (CIP) is a five-year program for expenditures by the City of New Orleans for permanent physical improvements such as roads, police and fire stations, parks and recreation facilities, libraries, community centers, etc.
- The plan identifies the physical needs of the City's agencies, estimates the costs of proposed projects, recommends expenditures and sources of funding for priority capital improvements.
- For inclusion in the plan, capital improvements must be for major investments expected to last many years but a minimum of 10-years.
- The CIP details the sources of funding for each project - such as general obligation bonds, State capital outlay funds, or federal funds - and the amount of funding to be spent in each year.



Capital Improvement Plan

Overview

- The CIP is a tool used by city administrators and elected officials to set priorities for project development and implementation. Each year the program:
 - Identifies critical needs
 - Estimates cost for proposed projects
 - Identifies sources of funding for the next five years.
- The CIP is prepared and adopted annually by the City Planning Commission and is presented as a recommendation to the Mayor and the City Council as required under Section 5-402 of the Home Rule Charter.
- The First year of the CIP forms the basis for preparation of the upcoming year's proposed capital budget.



Capital Improvement Plan Process

- In April the City's Chief Administrative Officer issues a memorandum setting forth the process and schedule for the preparation and adoption of the City's Capital Budget hearings.
- From May – June City Departments and Agencies work with the Capital Projects Administration Office to prepare capital budget request which are then submitted to City Planning Commission (CPC).
- The CPC staff then holds public hearings with each individual agency. These meetings typically occur in June and July.
- The City Planning Commission host two (2) Public Hearings on the Capital Improvement Plan. A copy of the current plan is available online. <http://www.nola.gov/city-planning/capital-improvement-plan/>
- The CPC will adopt a Capital Improvement Plan which must be presented to the Mayor.
- The Mayor will then present the Executive Capital Budget to City Council.
- City Council will adopt a 2015 Capital Budget Ordinance by Dec. 1st



History of General Obligation Bonds

- In November of 2004 the voters approved the sale of \$260 Million of General Obligation Bonds.
- A List of potential bond-funded projects was published prior to the 2004 election
- Bond resolution prescribes amounts of funding for four purposes:
 - Streets and related infrastructure: \$162,900,000 (63%)
 - Parks and recreation facilities: \$43,545,000 (17%)
 - Libraries: \$8,100,000 (3%)
 - Other public buildings and facilities: \$45,455,000 (17%)
- The City issued the following:
 - \$ 75 Million in 2007
 - \$ 40 Million in 2010
 - \$ 40 Million in 2013
 - \$ 40 Million in 2014
 - \$ 64 Million in 2015



2015-2019 Capital Budget

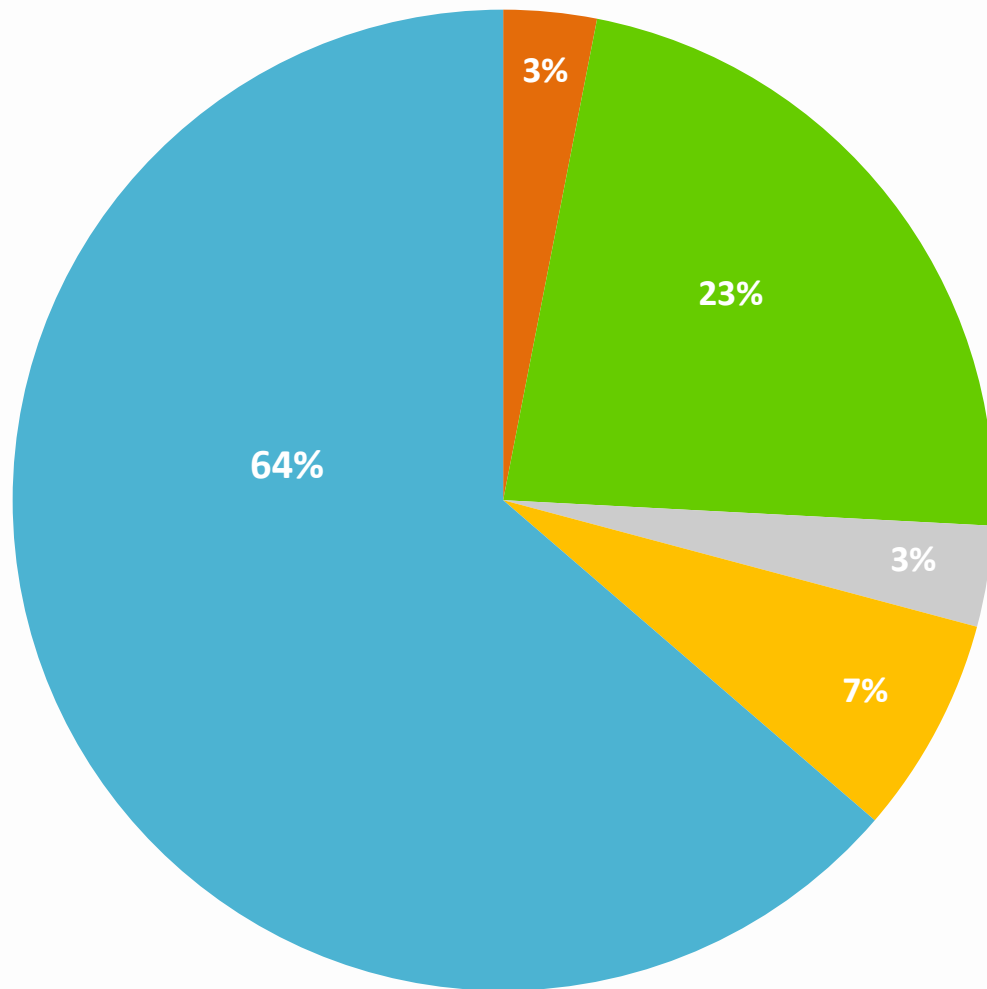
- Total Capital Budget= \$ 1,506,370,726
- Funding Sources:
 - FEMA \$563.4 Million
 - Bonds/MCAP \$281.0 Million
 - D-CDBG \$172.7 Million
 - SWB (FEMA & Participant) \$169.9 Million
 - Federal Funds \$110.2 Million
 - Anticipated FEMA \$ 72.0 Million
 - State Aid \$ 52.5 Million
 - Law Enforcement District \$ 35.7 Million
 - Other \$ 32.6 Million
 - Insurance \$ 10.5 Million
 - Grants \$ 4.4 Million
 - Donations \$ 1.3 Million





Department of Public Works

Projects by Phase



TOTAL
391 Projects

12

Pre-Design

89

Design

13

Bid & Award

28

Construction

249

Complete

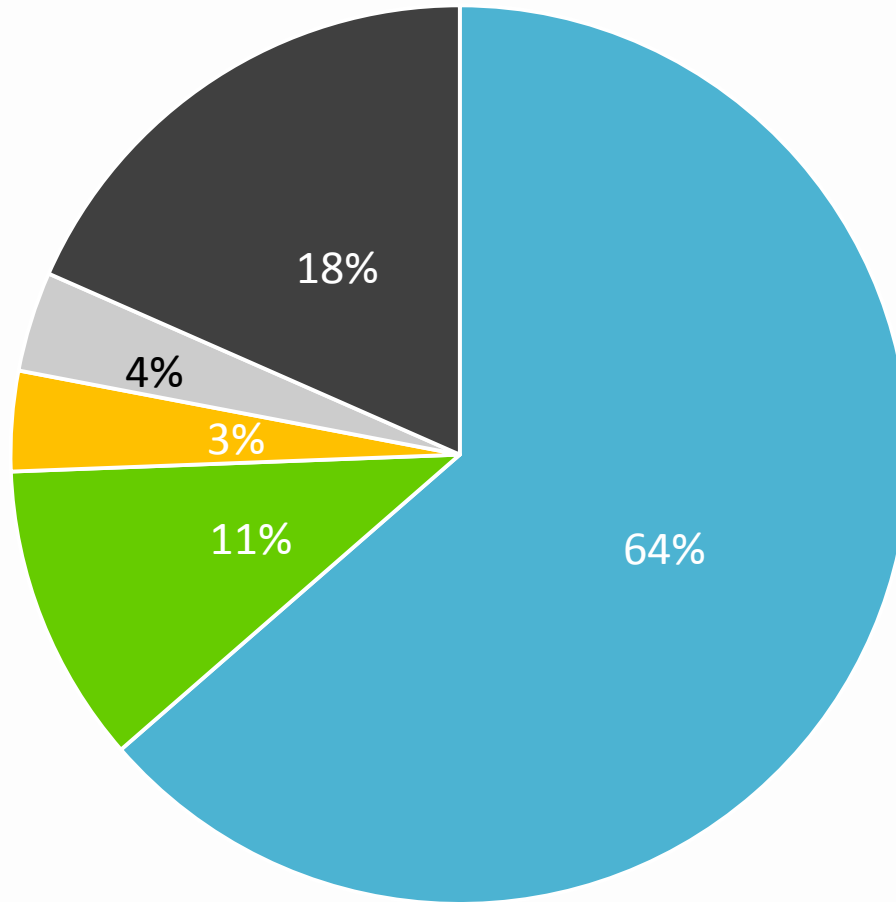
Information Based on Project Schedules as of December 8, 2015





Facilities Projects

Phase Breakdown



TOTAL PROJECTS

250

159

Completed Projects

27

Projects In Design

9

Under Construction

9

In Bid & Award

46

In Pre-Design

Information Based on Project Schedules as of November 16, 2015



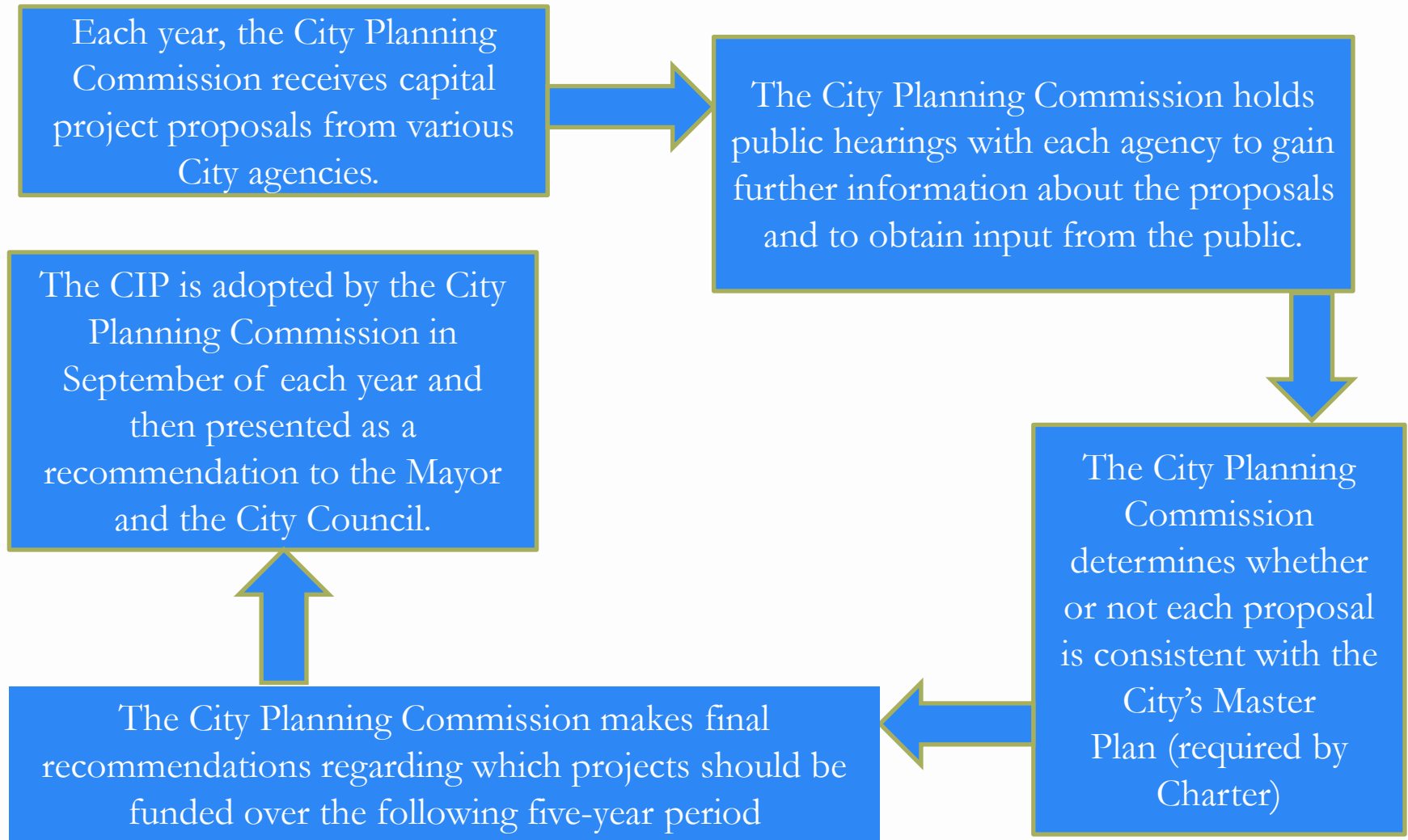
How can the Community Participate?

- During the Capital Improvement Planning process community leaders can attend Public Hearings with Department Heads to ask questions about proposed projects and recommend community priorities.
- During the project planning phase, the Mayor's Office of Neighborhood Engagement hosts planning meetings to solicit community input on the proposed scope of work for Bond funded projects.

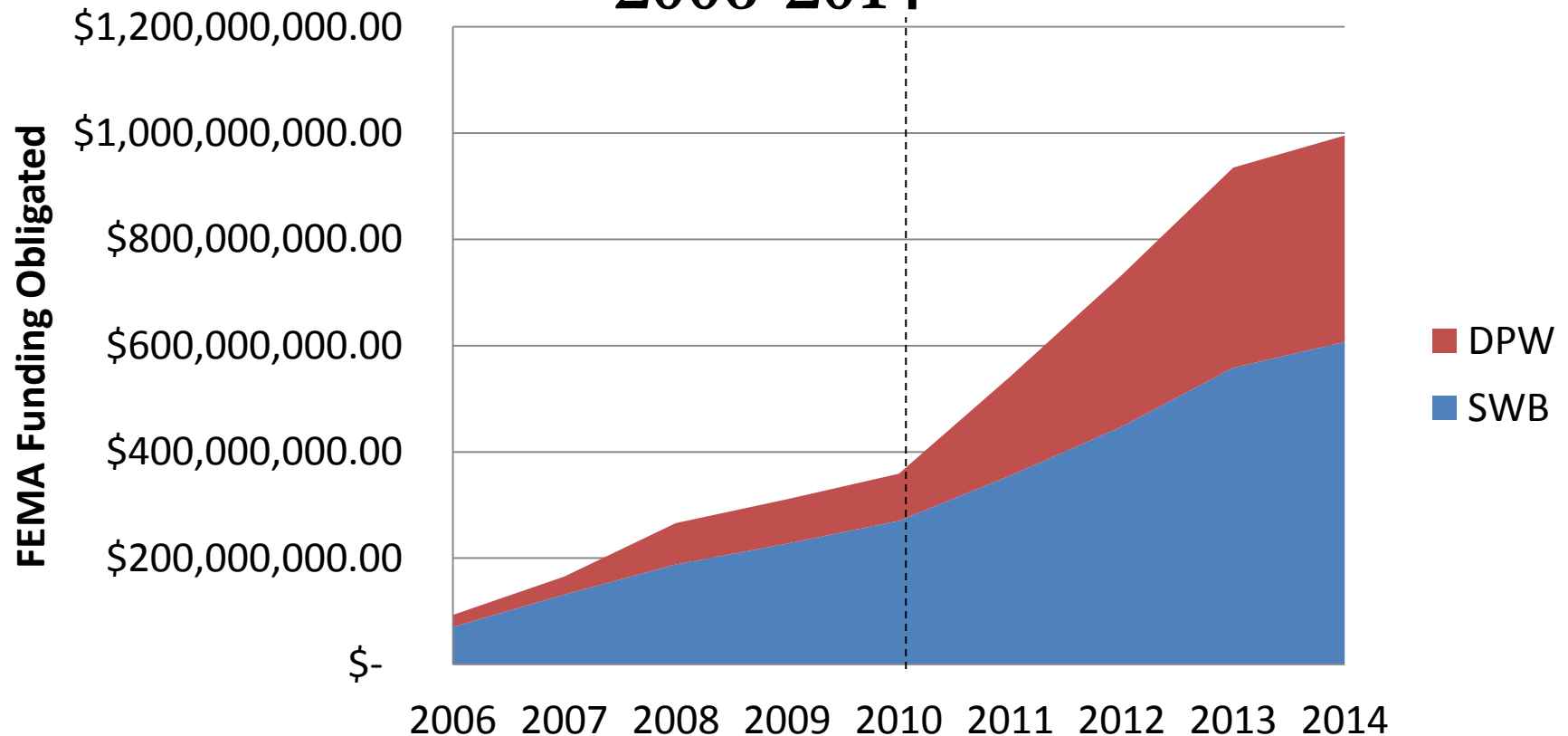


In Summary

Capital Improvement Plan Process



Total FEMA Infrastructure Funding Obligated 2006-2014



\$687M in funding obligated since May 2010

Total Federal Share Obligated 2006-2014:

- SWB \$606,924,959.94
- DPW \$337,619,475.64

Pending Obligations:

- SWB \$2,387,589.10
- DPW \$50,890,382.25

Infrastructure System – Capital Improvement Programs

- **Roadways (\$931M, 391 projects)**
 - Bond-funded capital improvement program
 - Submerged Roads/Paths to Progress program
 - Recovery Roads Program, Phase I & Phase II
- **Drainage System (\$1.7B total funding, with a \$425M SWB cost-share)**
 - 65% Federally funded Southeast Louisiana Urban Flood Control Project (SELA)
 - (8 miles of major drainage system)
 - Federally funded Storm Proofing program (Drainage Pump Stations & generators)
 - Federally funded Permanent Lakefront Gate Station Construction
- **Water System (\$150M)**
 - FEMA-funded Waterline Replacement program (combined with Recovery Roads Program, Phase II)
- **Sewer System (\$422M)**
 - Sewer System Evaluation and Rehabilitation Program (SSERP)
 - FEMA funded Emergency Sewer System Assessment (ESSA)





The Roadway System





The Roadway System

- 1,547 miles of City-owned roads
 - Approx. 60% of the City's roads are asphalt-topped and 40% are concrete-topped
 - A standard city block is 350 feet long; 1 mile = 15 blocks
 - Approx. 24,000 Blocks of streets in the City
 - Represents \$9.9B in fixed, physical City assets
- The standard design life of a roadway is:
 - 20 years for asphalt pavement
 - 30 years for concrete pavement
- Prior to Katrina, a typical year featured:
 - \$16M in roadway capital improvements using bond, FHWA, and CDBG funds;
 - \$2-3M in roadway maintenance using general operating funds.



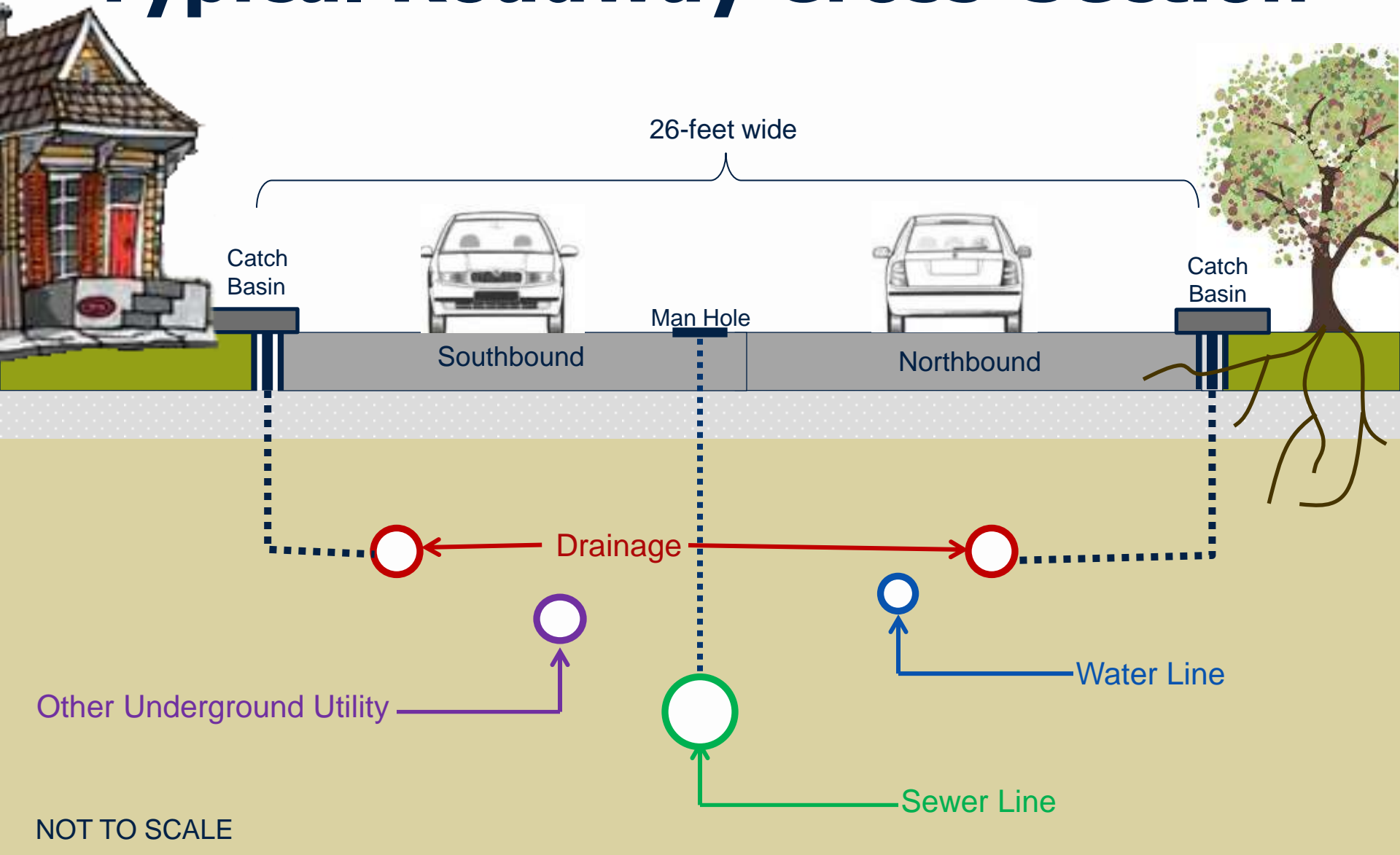


The Roadway System

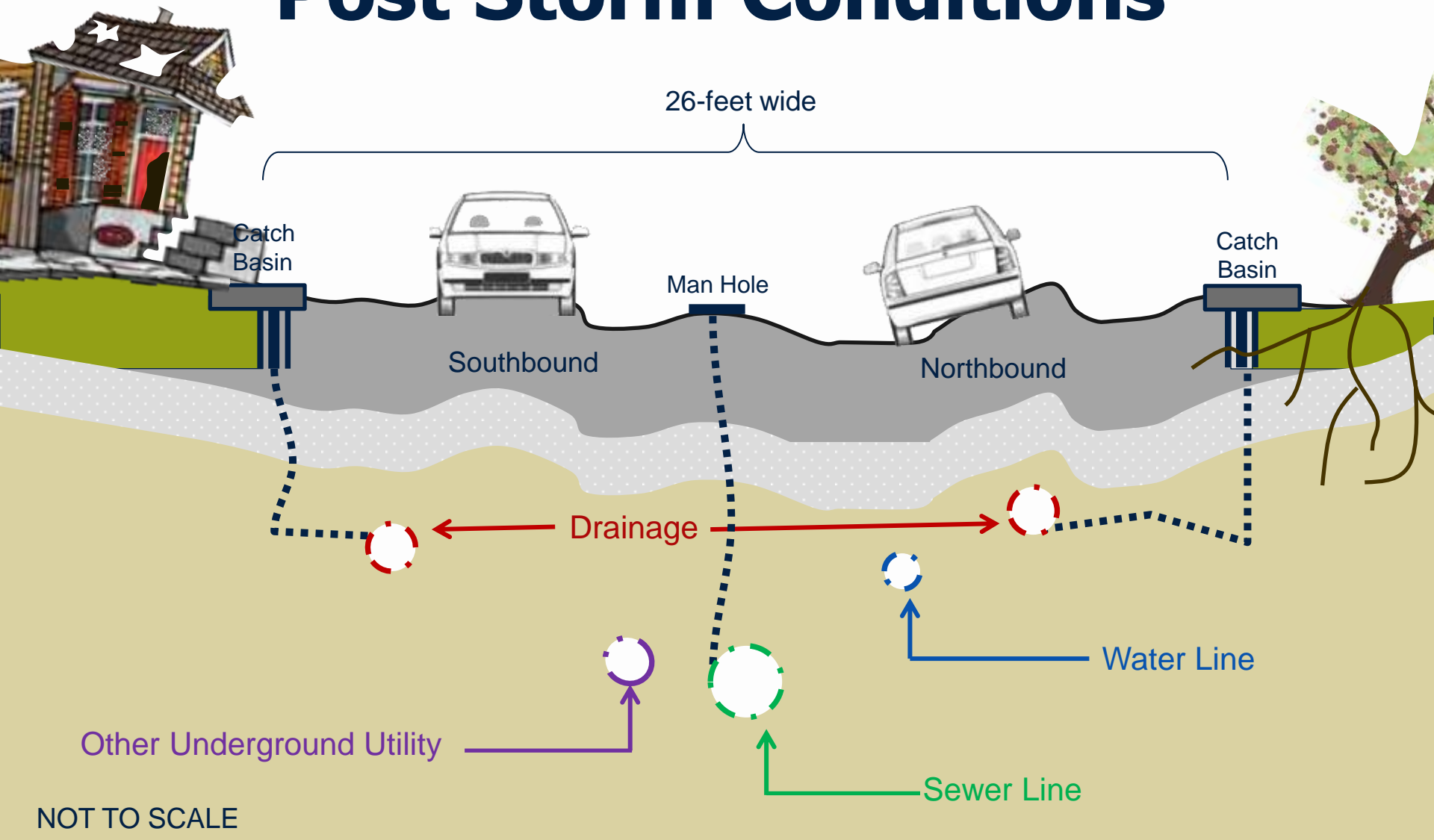
- About 1/3 of the streets in New Orleans were in Fair or worse condition before Katrina
- Following Katrina, a typical year has featured:
 - \$34M in roadway capital improvements using bond, FHWA, FEMA, D-CDBG, and CDBG funds.
 - ✓ 14 miles of roadways repaved or reconstructed
 - \$1-2.5M in roadway maintenance using general operating funds.
 - ✓ 75,000 potholes filled
 - ✓ 5,000 catch basins cleaned



Typical Roadway Cross-Section

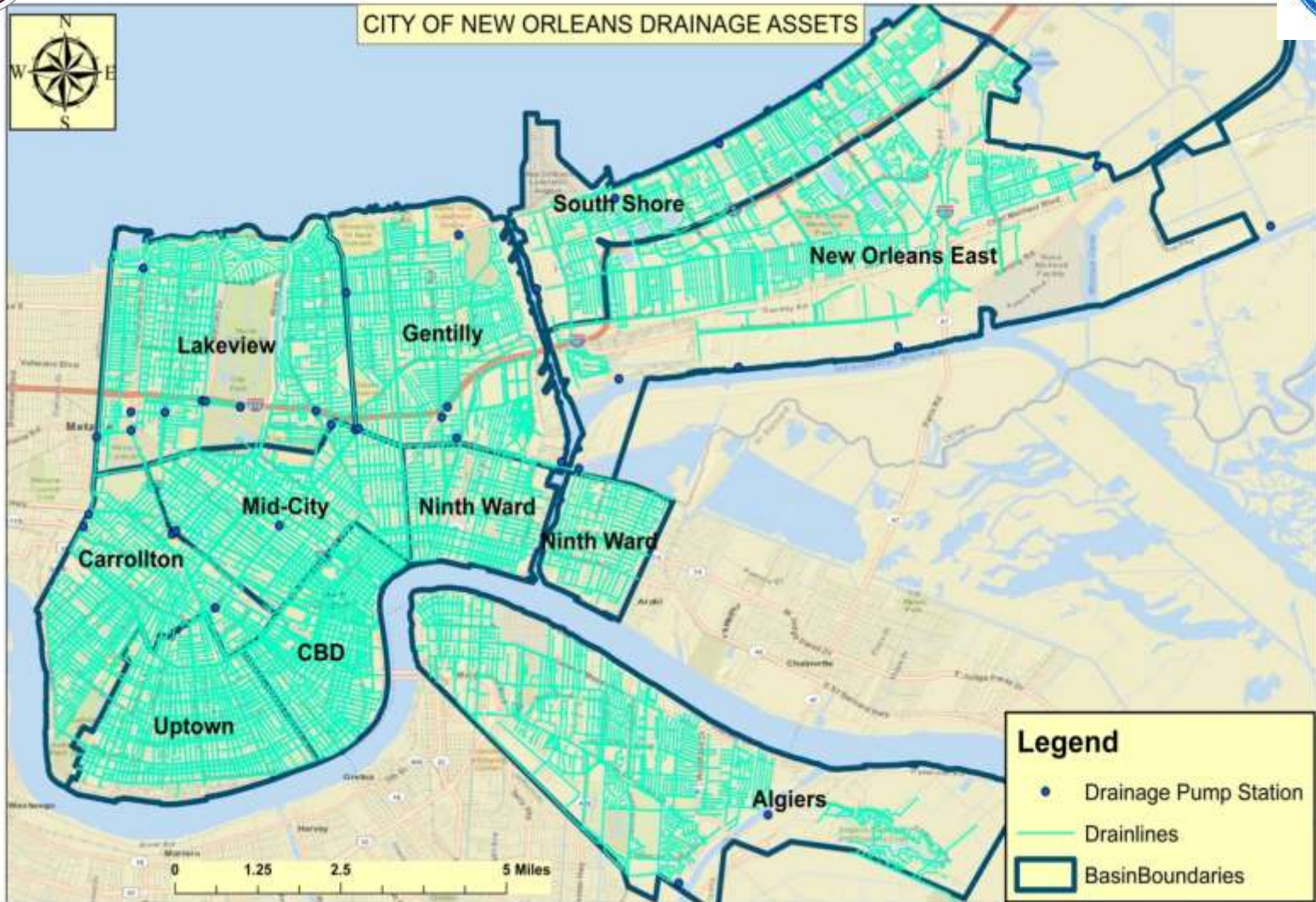


Typical Roadway Cross-Section Post Storm Conditions





The Drainage System

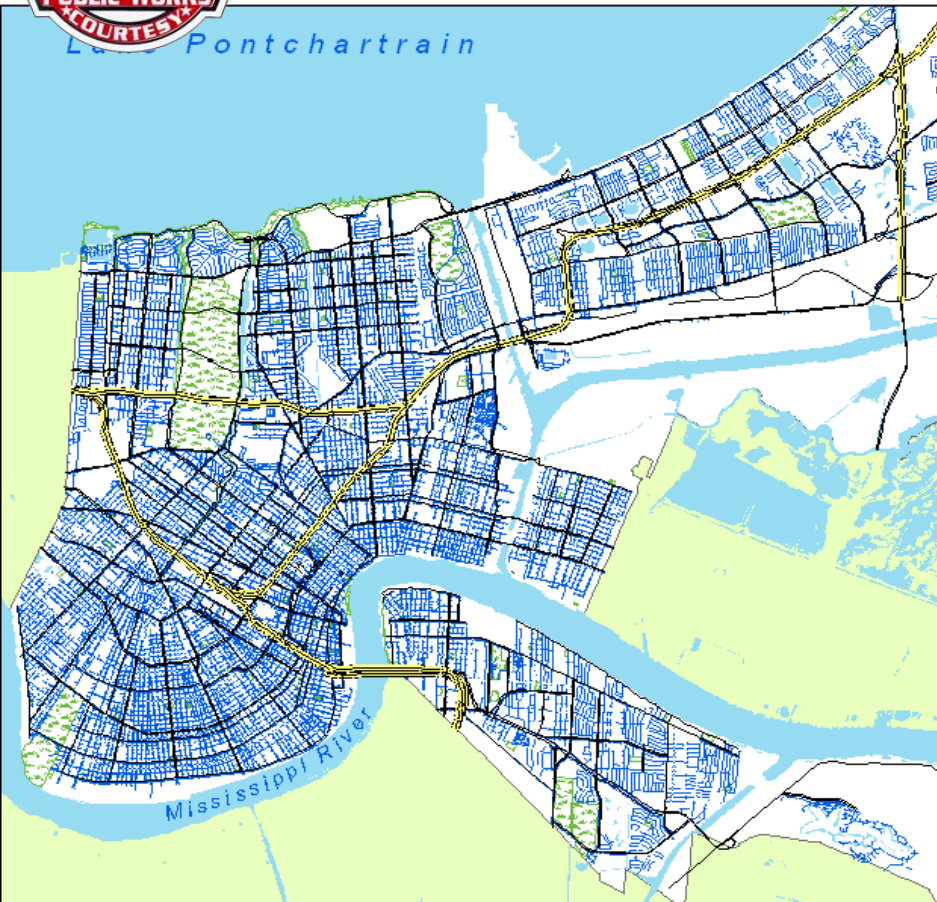


Drains a total of 123,190 acres (10 drainage basins).





The Drainage System(s)



Minor Drainage System

- Drain lines less than 36 inches in diameter
- Maintained by DPW since 1992. Prior to 1992, SWB maintained drainage through a millage.



Major Drainage System

- Drain lines 36 inches or larger in diameter
- Maintained by the SWBNO





The Minor Drainage System



- 1,287 miles of small (less than 36 inches in diameter) drain lines, 65,000 catch basins, and 48,000 manholes.
- 60-80 year design life, depending on type of pipe.
- Surface drainage ditches in approx. 20% of the City (bio-swales)
- Almost a third of the drainage lines in the system are less than 15 inches in diameter (the current minimum size required for new projects involving drainage infrastructure).





The Minor Drainage System

- Over 600 deferred drainage point repairs.
- Capacity to handle a 2-8 year rain event, depending on location.
- Would require a \$3.1B capital investment to upgrade the capacity of the entire system to handle a 10-year rain event.
- FEMA has approved a \$2 billion settlement in recovery funds for repairs to New Orleans' roadways and subsurface infrastructure.





The Major Drainage System



- Over 160 miles of covered canals and 100 miles of open canals (8-ft to 28-ft wide).
- Permanent pump stations on Lake Pontchartrain (when completed) and West Closure Complex (\$8M *est.*, additional annual operating cost)



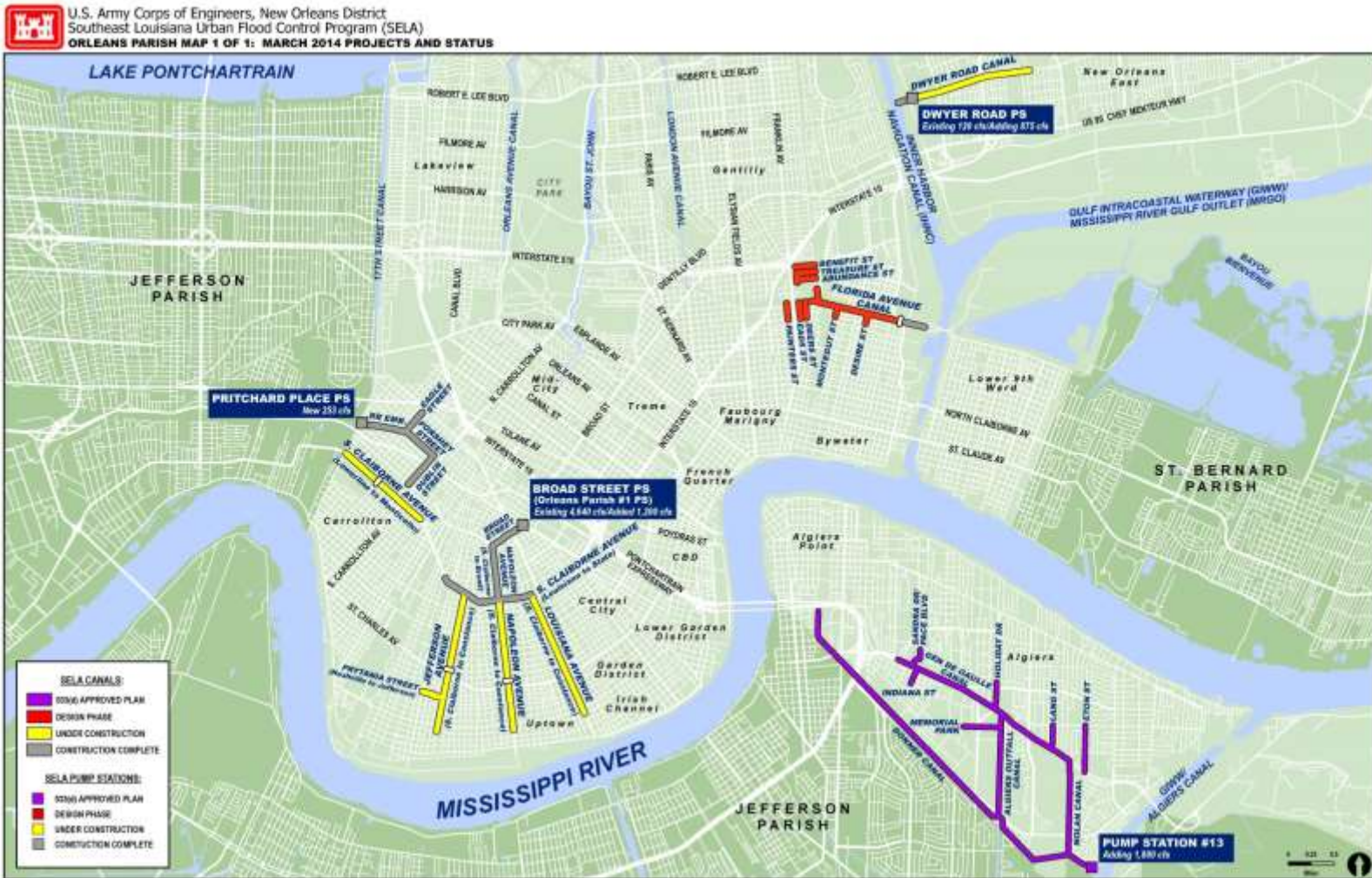


The Major Drainage System

- 60-80 year design life for pipes and covered canals.
- 24 major and 11 underpass pumping stations (120 pumps) capable of pumping 33,000 million gallons per day.
- Would require a \$1.6B capital investment to upgrade the capacity of the entire system to handle a 10-year rain event.



Reduction Project



The Water Distribution System



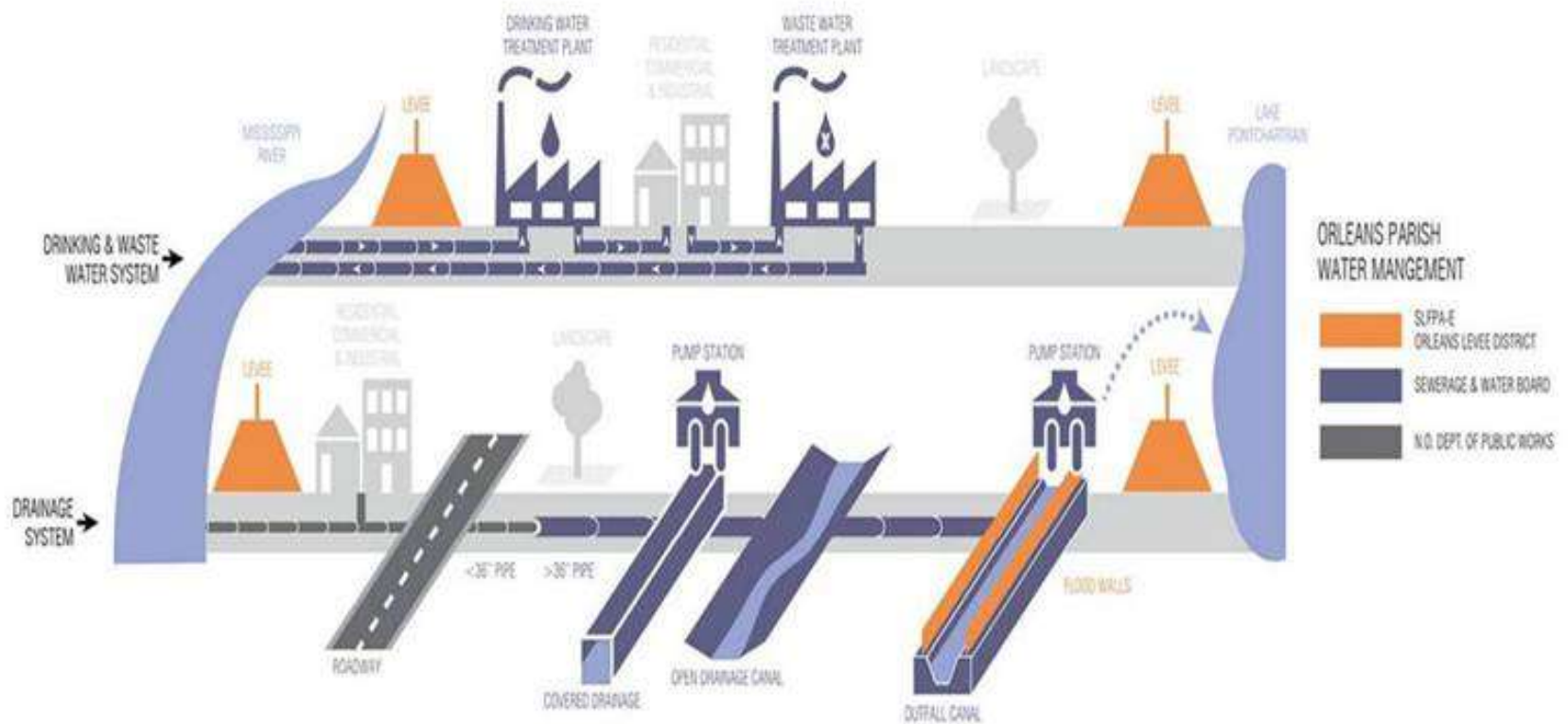
- **Over 2,000 miles of water mains**
 - Distributes 143.75 million gallons of drinking water per day to customers through over 143,000 service connections, ranging in size from 5/8 inches to 16 inches in diameter.
 - Drinking water source: Mississippi River
 - Water is treated at the Carrollton Water Purification Plant for East Bank customers and at the Algiers Water Purification Plant for West Bank customers.
 - Over 17,000 fire hydrants for fire protection
- **The standard design life of a water line is 60-80 years depending on the type of pipe.**



The Water Distribution System



Orleans Parish Water Management



The Sewer Collection System



- Over 1,300 miles of sewer collection lines, ranging in size from 8 inches to 84 inches in diameter
- Over 120 miles of sewer force mains ranging in size from 6 inches to 72 inches in diameter
- 84 sewer stations and two sewer treatment plants, treating 132 million gallons per day
- City is divided into 10 service basins.
- The standard design life of a sewer line is 60-80 years depending on type of pipe.
- Third Modified Consent Decree in effect.

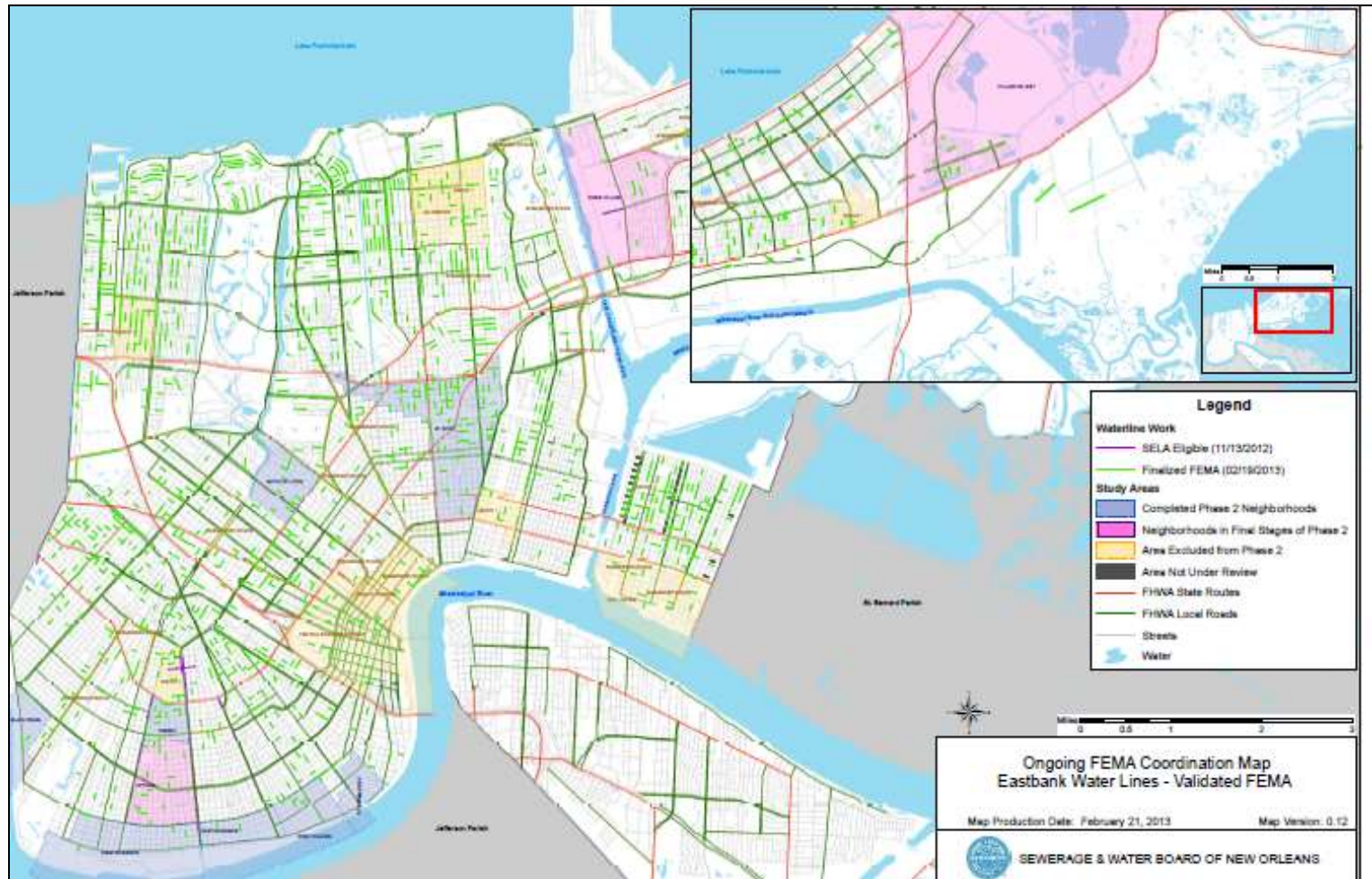


Total Other Federal Share Obligated for SWB Capital Program – Underground, Water, Sewer and Drainage

Program	Total
US Army Corps of Engineers (SELA) funding (cost share)	\$424,299,015
US Army Corps of Engineers (fronting) funding (deferred repayment)	\$179,545,607
Total	\$604,844,622

SELA Project	Estimated Completion Date
SELA 20 - Florida Ave. Phases 2 & 3	Winter 2018
<u>SELA 21 - Jefferson Ave. Phase 1</u>	<u>Winter 2017</u>
<u>SELA 22 - Jefferson Ave. Phase 2</u>	<u>Summer 2016</u>
SELA 23 - Napoleon Ave. Phase 2	Winter 2015
SELA 23a - Napoleon Ave. Phase 3	Winter 2016
SELA 24a - Claiborne Ave. Phase 1	Spring 2016
SELA 24b - Claiborne Ave. Phase 2	Winter 2016
SELA 26 - Florida Ave. Phase 4	Winter 2018
SELA 27 - Louisiana Ave	Spring 2018

FEMA-Funded Water Line Repairs



FEMA-Funded Water Line repairs and replacements will happen
via the Recovery Roads Program

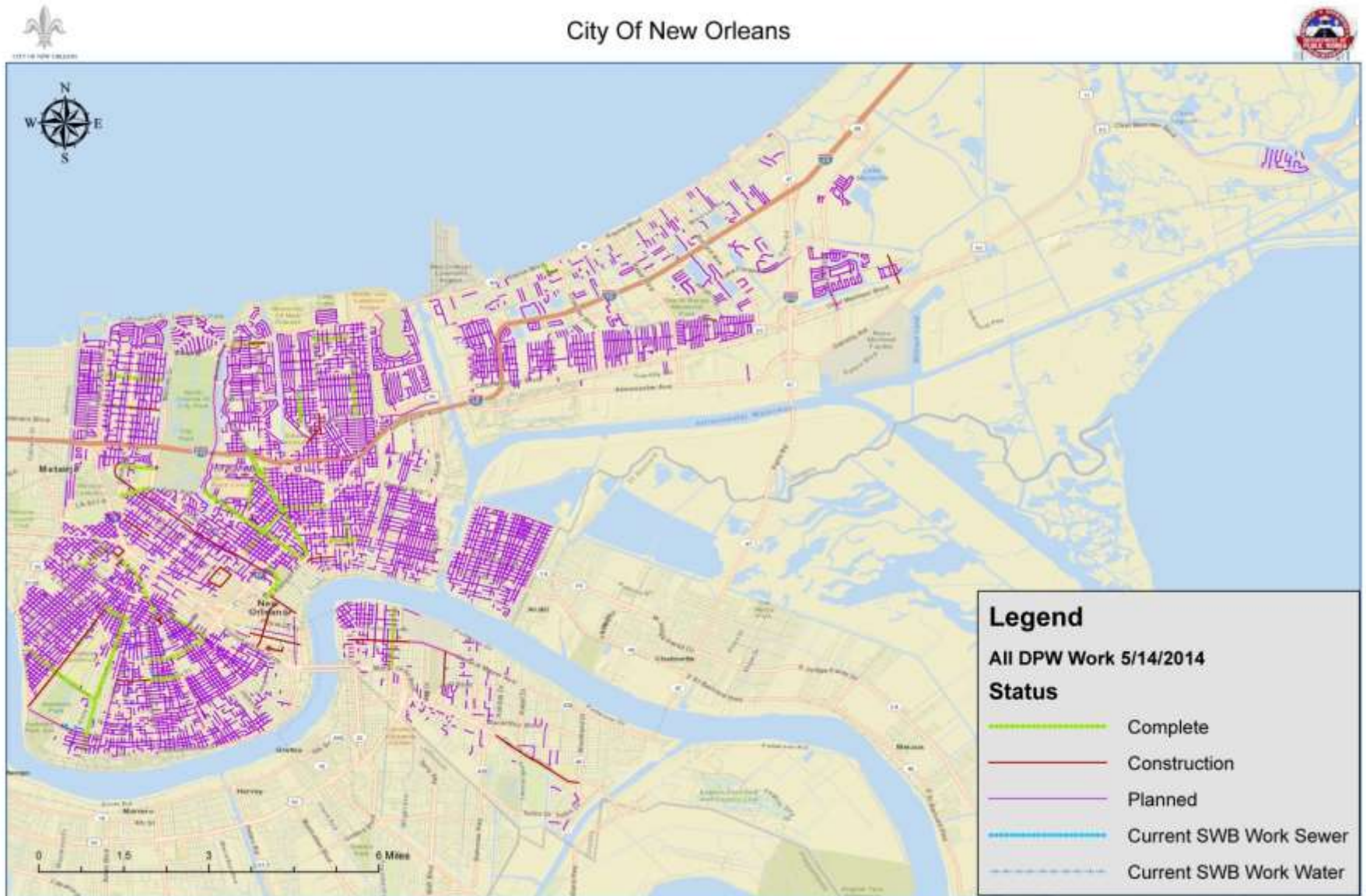


SWB Sewer Line Repairs

- **Emergency Sewer System Assessment (ESSA)** is an effort by the SWBNO was intended to identify Katrina-related damages in portions of the sewer collection system served by each pump station. This effort is directly linked to the FEMA program and operated by the SWBNO. **(\$48M)**
- **Sewer System Evaluation and Rehabilitation Program (SSERP)** is a multi-year program by the SWBNO to identify and address structural and mechanical weaknesses in the wastewater collection system and to ensure that the system has adequate capacity. This program is mandated by federal regulations, coordination and integration is critical to the improvement of the collection systems to support the FEMA program. **(\$374M)**



Roadway Infrastructure Work



Recovery Roads Program Overview

- This is part of a larger City-wide, multi-year infrastructure repair/recovery effort funded by FEMA.
- The intent of the Recovery Roads Program is to restore the roads and sidewalks in the City to their pre-Katrina condition.
- Only damage directly attributed to Hurricane Katrina as determined by FEMA on minor (non-federal) streets is eligible for repair under this program.
- This program will be managed on a neighborhood-by-neighborhood basis.
- Repairs could include waterline replacements, full roadway reconstruction, repaving, and/or point repairs of streets and sidewalks.



Recovery Roads Program Overview

- Water and sewer line repairs will be performed before permanent paving repairs are completed whenever possible.
- DPW will be responsible for surveying and design of pavement repairs.
- SWB will be responsible for design of waterline and sewer repairs.
- Pavement, waterline, and sewer project designs will be combined and bid out in one package by DPW or SWBNO
- Coordinated w/ Entergy, SSERP, ESSA, Paths to Progress and other capital infrastructure improvements.



Recovery Roads Reconstruction

Scope *may* include:

- Sewer line replacement
- Water line replacement
- Gas line replacement
- Drainage repairs
- Manhole adjustments



Recovery Roads Reconstruction

Scope *may* include:

- Catch basin cover replacement
- Drainage repairs
- Sidewalk repairs
- Curb replacement
- Re-paving



Recovery Roads

Paving Only

Scope *may* include:

- Gas line replacement
- Manhole adjustments
- Catch basin cover replacement
- Sidewalk repairs
- Curb replacement
- Re-paving



Recovery Roads – Status

Phase	# of Projects	Budget
Complete	8	\$12,295,698.89
Construction	6	\$32,124,570.41
Bid & Award	5	\$25,397,594.72
Design	54	\$378,433,638.46
Total	73	\$448,269,502.48



Submerged Roads/Paths to Progress

- Funding \$100 M Federal Emergency Relief Funds
- 49.1 miles of roadway were completed under Submerged Roads Program
- 35.4 miles of roadway improvements at a cost of \$60M from July 2012 – March 2015 via Paths to Progress Program
- Primarily mill and overlay projects



Pavement Assessment

A city-wide pavement assessment results will be processed and available in spring 2016.

Scope of work includes:

- Scientific assessment of roadway conditions
- Van equipped with lasers, inertial GPS, high-definition digital imagery
- Van can simultaneously collect pavement profile, rutting, surface distress, roadway geometrics, pavement imagery



Pavement Assessment

Data Collection Sensors



Downward Lines can imaging captures pavement images for distress rating



All data tagged with GPS and linear reference



Laser sensors measure longitudinal and transverse profile (IRI and Rutting)



2 HD cameras capture right-of-way images during collection



Pavement Assessment Classifications

Condition	PCI Score	Description	Cost
Excellent	100-85	Pavement is in new condition with no maintenance required.	¢
Good	84-70	Pavement is in good condition with a few small, widely spaced cracks.	¢¢
Fair	69-55	Pavement is in fair condition, with some cracking and potholes, and is beginning to show traffic wear, but is still structurally sound. Would require some patching to repair.	\$
Poor	54-40	Pavement is in poor condition, with significant cracking and potholes and some rutting. Would require mill & overlay treatment and full depth patching to repair.	\$\$
Very Poor	39-10	Pavement is in very poor condition, with significant cracking, potholes, and rutting. Would require full reconstruction to reconstruction to repair.	\$\$\$\$\$
Failure	9-0	Pavement has disintegrated and roadway is impassible. Would require full reconstruction to repair.	\$\$\$\$\$

**** A city-wide pavement assessment results will be processed and available in spring 2016.**



Planning for Future Infrastructure System Needs

One block of a typical roadway costs:

- \$450,000 to **fully reconstruct**
(this includes replacing all underground utilities, repaving the roadway and replacing or establishing sidewalks)
- \$150,000 to **re-pave** the roadway in asphalt
- \$1,500 to **maintain** on an annual basis over the design life of the street
(this includes filling potholes, point repairs to pavement, and managing the drainage system)
- 15 blocks = 1 mile
- 1 mile = \$7,000,000



Planning for Future Infrastructure System Needs

In order to fix all of the streets in New Orleans and maintain them in Fair or better condition, to include...

- Re-paving each street at the end of its design life (once every 25 years);
- Reconstructing each street once its underground utilities reach the end of their design life (once every 75 years); and
- Performing routine maintenance on each street to repair potholes, repair water leaks, sewer leaks, and damaged drain lines and catch basins, and clean catch basins once every 3 years.

...It would cost approx. \$350,000,000 per year.

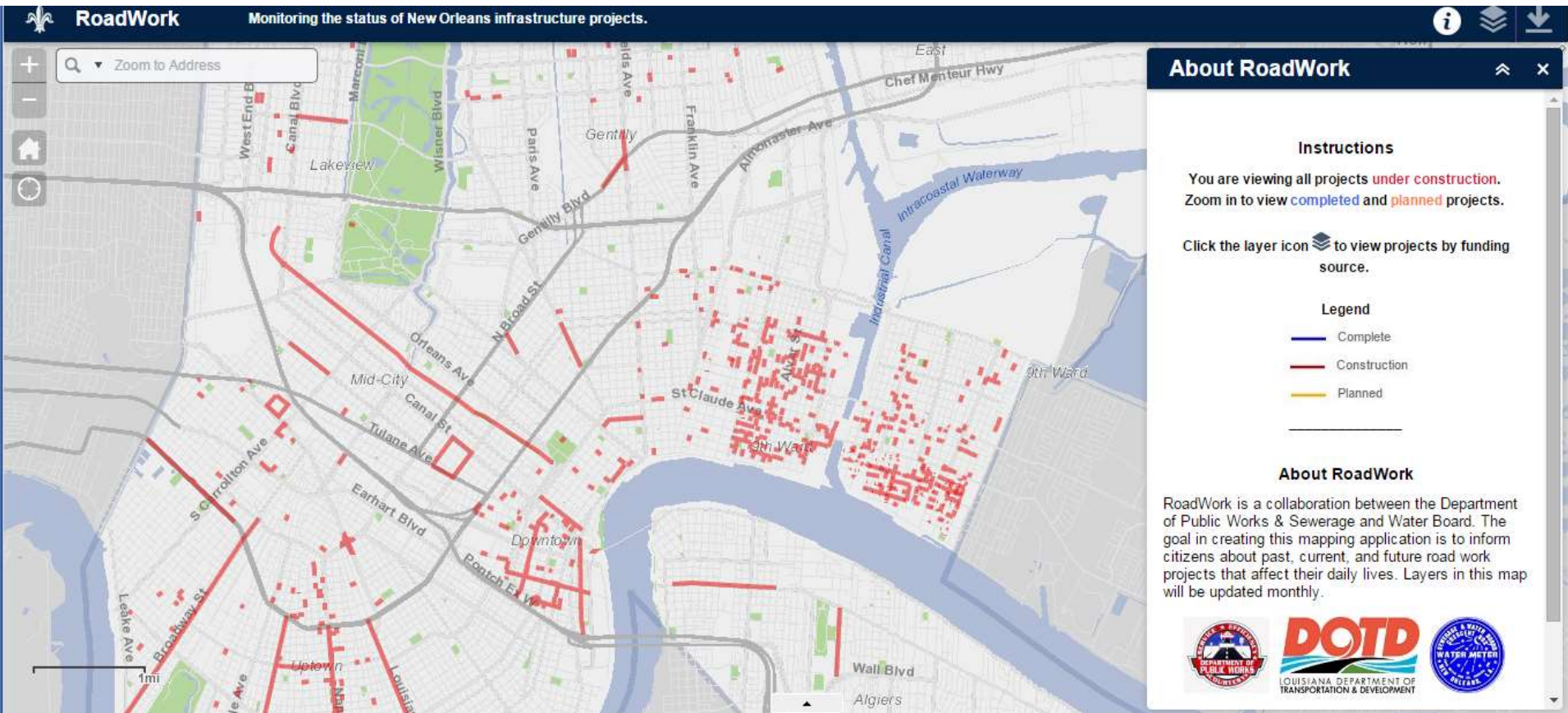


Infrastructure Coordination

- The City is currently undergoing approximately \$2 B infrastructure investment
- Maneuvering through progressive construction, with evolving traffic is frustrating for constituents
- The City and partners have developed a tool to help reduce unanticipated travel delays



Roadwork.nola.gov



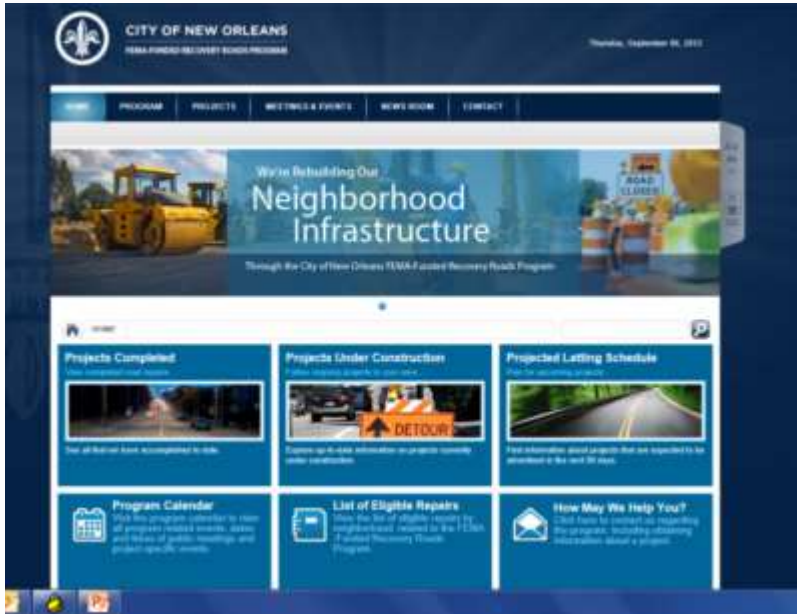
Roadwork.nola.gov



- A color-coded map displays the status of completed, ongoing and future construction projects
- Pop-up windows provide details of the project scope, as well as a timeline
- Data is populated and synchronized with other resources.



Resources



RecoveryRoads.nola.gov



RoadWork.nola.gov



Infrastructure System – Path Forward

- 1. Coordinate and leverage ongoing SWBNO and DPW programs to maximize the amount of work completed and avoid duplication of effort.**
- 2. Implement innovative storm water management practices through green/sustainable infrastructure solutions and policies.**
- 3. Improve current infrastructure maintenance by better coordination between SWBNO and DPW and new policies and procedures.**
- 4. Look for additional opportunities to increase funding for infrastructure maintenance and capital improvements.**

